

JAN. 18. 2007 4:08PM

3022524210

RECEIVED  
CENTRAL FAX CENTER

NO. 6034 P. 1/12

JAN 18 2007

## FAX TRANSMISSION

DATE:

PTO IDENTIFIER: Application Number 10/584,745  
Patent Number

Inventor: Ursula Ziegler et al.

MESSAGE TO: US Patent and Trademark Office

FAX NUMBER: (571) 273-8300

FROM: CONNOLLY BOVE LODGE & HUTZ LLP  
Ashley I. Pezzner

PHONE: (302) 658-9141

Attorney Dkt. #: 05587-00408-US

PAGES (Including Cover Sheet): 12

CONTENTS: Transmittal Of Translation Of International Preliminary Report On Patentability (1 page)  
Translation Of International Preliminary Report On Patentability (9 pages)  
Certificate of Transmission (1 page)

If your receipt of this transmission is in error, please notify this firm immediately by collect call to sender at (302) 658-9141 and send the original transmission to us by return mail at the address below.

This transmission is intended for the sole use of the individual and entity to whom it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. You are hereby notified that any dissemination, distribution or duplication of this transmission by someone other than the intended addressee or its designated agent is strictly prohibited.

CONNOLLY BOVE LODGE & HUTZ LLP  
1007 North Orange Street, P.O. Box 2207, Wilmington, Delaware 19899  
Telephone: (302) 658-9141 Facsimile: (302) 658-5614

516171\_1

JAN. 18. 2007 4:08PM 3022524210

RECEIVED  
CENTRAL FAX CENTER

NO. 6034 P. 2/12

JAN 18 2007

Docket No.: 05587-00408-US

Application No.: 10/584,745

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Ursula Ziegler et al.

Application No.: 10/584,745

Confirmation No.: N/A

Filed: June 26, 2006

Art Unit: N/A

For: COMPOSITE BODIES, METHOD FOR THE  
PRODUCTION THEREOF AND USE  
THEREOF

Examiner: Not Yet Assigned

**TRANSMITTAL OF TRANSLATION OF INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY**

MS PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits herewith a translation of the International Preliminary Report On Patentability ("IPRP") issued in the corresponding international application. The international Examiner has deemed that claims 2-16 have novelty and claims 1-17 have industrial applicability. Each reference cited in the IPRP was cited by Applicant in an Information Disclosure Statement filed in this application.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 05587-00408-US.

Respectfully submitted,

By

Ashley I. Pezzner

Registration No.: 35,646

CONNOLLY BOVE LODGE & HUTZ LLP

1007 North Orange Street

P.O. Box 2207

Wilmington, Delaware 19899

(302) 658-9141

Attorney for Applicant

516170\_1

## PATENT-COOPERATION TREATY

From the INTERNATIONAL BUREAU

## PCT

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis.3(c) and 72.2)

To:

TICONA GMBH  
Intellectual Property EU  
R 300  
Professor Staudinger Strasse  
65451 Kelsterbach  
ALLEMAGNE

Date of mailing (day/month/year)  
28 December 2006 (28.12.2006)

Applicant's or agent's file reference  
2003/G018

International application No.  
PCT/EP2004/014563

International filing date (day/month/year)  
22 December 2004 (22.12.2004)

Applicant

TICONA GMBH et al

## IMPORTANT NOTIFICATION

Ticona GmbH/Patente

Vorg.

Eing.: 04. JAN. 2007

☐ WW.☐ anhängen☐ Vert. als Vorg. / in geggeg.☐ HU

## 1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

## 2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

KR

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

## 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Authorized officer

Agnes Wittmann-Regis

Facsimile No. +41 22 338 82 70

**TRANSLATION****PATENT COOPERATION TREATY****PCT****INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

|   |   |   |                       |
|---|---|---|-----------------------|
| Applicant's or agent's file reference<br><b>2003/G018</b>   | FOR FURTHER ACTION  |   | See Form PCT/IEPA/416 |
| International application No.<br><b>PCT/EP2004/014563</b>   | International filing date (day/month/year)<br><b>22.12.2004</b> | Priority date (day/month/year)<br><b>24.12.2003</b> |                       |
| International Patent Classification (IPC) or national classification and IPC<br><b>B32B27/28, B29C45/16</b> |   |   |                       |
| Applicant<br><b>TICONA GMBH</b>   |   |   |                       |

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 8 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ (sent to the applicant and to the International Bureau) a total of 4 sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☒ Box No. VII Certain defects in the international application

☒ Box No. VIII Certain observations on the international application

|   |                                   |
|---|-----------------------------------|
| Date of submission of the demand        | Date of completion of this report |
| Name and mailing address of the IEPA/EP | Authorized officer                |
| Facsimile No.                           | Telephone No.                     |

Form PCT/IEPA/409 (cover sheet) (January 2004)

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/014563

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:

- ☐ international search (Rule 12.3 and 23.1(b))  
☐ publication of the international application (Rule 12.4)  
☐ international preliminary examination (Rule 53.2 and/or 53.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

☐ the international application as originally filed/furnished

☒ the description:

pages 1-19 \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:

nos. \_\_\_\_\_ as originally filed/furnished

nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19

nos.\* 1-17 \_\_\_\_\_ received by this Authority on 25.10.2005 with telefax

nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the drawings:

sheets \_\_\_\_\_ as originally filed/furnished

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(e)).

☐ the description, pages \_\_\_\_\_

☐ the claims, nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

Form PCT/EP/409 (Box No. I) (January 2004)

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/014563

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)

Claims 2-16

YES

Claims 1, 17

NO

Inventive step (IS)

Claims

YES

Claims 1-17

NO

Industrial applicability (IA)

Claims 1-17

YES

Claims

NO

## 2. Citations and explanations (Rule 70.7)

1. This report also makes reference to the following documents:

D1: "Ergebnisse und Leistungen", IZFM 1999, pages 1-26, XP002321884, URL: [www.uni-stuttgart.de/hsg-imat/hsg99.pdf](http://www.uni-stuttgart.de/hsg-imat/hsg99.pdf)

D2: WO-A-0020204

D3: "Kunststoffe", No. 11, 2003, pages 80-84

D4: JP-A-2003220667 (a JPO translation is attached)

- 2.1 Document D1 (cf. page 18, column 2, last paragraph, together with page 19, column 2, last paragraph) discloses a composite body made of a polyacetal and at least one thermoplastic polyamide elastomer and formed by a polyacetal moulding onto which one or more mouldings made of the thermoplastic polyamide elastomer are directly moulded, the polyacetal and the thermoplastic polyamide elastomer being joined together; the subject matter of claim 1 differs therefrom in that the composite bonding strength under tensile stresses according to ISO 527 between the polyacetal and the thermoplastic polyamide

Form PCT/ISPA/409 (Box No. V) (January 2004)

JAN 18 2007

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/014563

Box No. V

Reasoned statement under Article 33(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

elastomer amounts to at least 0.5 N/mm<sup>2</sup>.

For the reason explained in Box VIII, point 1, the novelty of the claimed subject matter cannot be acknowledged (PCT Article 33(2)) and the present application does not meet the requirements of PCT Article 33(1).

- 2.2 A process for producing a composite body comprising a polyacetal and at least one thermoplastic polyamide elastomer, in which at least one polyacetal moulding and another moulding made of a thermoplastic polyamide elastomer are moulded together by a multiple component injection-moulding process, the polyamide elastomer being injected onto the polyacetal moulding, is known from document D1 (cf. page 18, column 2, last paragraph, together with page 19, column 2, last paragraph).

The very wide range of polyamide elastomer compound temperatures and tool temperatures, which extends from 200 to 320°C, and from 20 to 140°C, respectively, are normal trade practice and determined by the materials themselves, and should be regarded as implicitly disclosed by D1, as well as the minimum composite bonding strength of 0.5 N/mm<sup>2</sup> according to ISO 527.

Consequently, the subject matter of claim 15 would in any case differ from the process known from D1 by the step which consists in pre-heating the

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/014563

Box No. V

Reasoned statement under Article 33(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

polyacetal moulding to a temperature ranging from 80°C to just under its melting point before the polyamide elastomer injection moulding step.

For this reason, the subject matter of claim 15 is novel (PCT Article 33(2)).

For the reason mentioned in Box VIII, point 2, it is not possible in this report to determine whether the application meets the requirements of PCT Article 33(3).

- 3.3 Consequently, the use as per claim 17 also fails to meet the requirements of PCT Article 33(2); see also document D1, page 17, column 3, and figure 4.
4. The description does not contain any indication of a preferred selection among the additional features of the dependent claims, which are claimed as being equivalent, in order to substantiate an inventive step, and therefore dependent claims 2-14 and 16 in their present wording cannot meet the requirements of PCT Article 33(3).
5. Claims 1-17 meet the requirement of PCT Article 33(4).



## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/014563

## Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

1. Contrary to PCT Rule 5.1(a)(ii), the description does not cite documents D1, D2, D3 and D4 or indicate the relevant prior art disclosed therein.
2. The independent claims have not been drafted in the correct two-part form defined by PCT Rule 6.3(b).
3. Contrary to PCT Rule 5.1(a)(iii), the description is not in line with the claims.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/014563

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. The Examining Authority is of the opinion that document D1 discloses low bonding strength between POM and Pebax in a moulding produced by the 2K injection-moulding process. However, that bonding strength is not specified, and therefore it is not possible to determine whether this low POM/PEBAX bonding strength lies within the range from 0.5 N/mm<sup>2</sup> according to ISO 527; see also PCT Guidelines 12.04.
3. However, the necessity of a high polyacetal compound temperature, high polyamide elastomer compound temperature and tool tempering to achieve satisfactory bonding strength between the polyacetal part and the polyamide elastomer part cannot be accepted because it is inconsistent with examples 5 and 6 (cf. page 18), as well as examples 11 and 12 (cf. page 19). Consequently, features based thereon cannot substantiate an inventive step in an independent claim involving an improvement in bonding strength of at least 0.5 N/mm<sup>2</sup> (see PCT Guidelines, 5.33).
3. In this respect, it should also be noted that examples 1, 2 and 4-12 relate to MBS core-shell and TPU-modified polyacetal.
4. Since the bracketed features in claims 1 and 2 do not relate to references to the figures, it is formally unclear whether the bracketed features

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/014563

Box No. VIII

Certain observations on the international application

belong to the claimed subject matter and hence restrict the scope of these claims. For this reason, the bracketed features make the claimed subject matter unclear; cf. PCT Guidelines, 5.11.

JAN. 18. 2007 4:10PM

3022524210

RECEIVED  
CENTRAL FAX CENTER

NO. 6034

P. 12/12

JAN 18 2007

Application No. (If known): 10/584,745

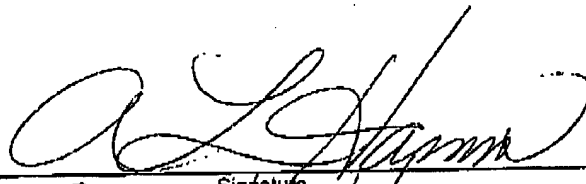
Attorney Docket No.: 05587-00408-US

### Certificate of Transmission under 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office.

on

1/18/07  
Date



Signature

Amy L. Hamm  
Typed or printed name of person signing Certificate

Registration Number, if applicable

(302) 658-9141

Telephone Number

Note: Each paper must have its own certificate of transmission, or this certificate must identify each submitted paper.

Transmittal Of Translation Of International Preliminary Report On  
Patentability (1 page)

Translation Of International Preliminary Report On Patentability (9 pages)

516171\_1